LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of determining geometrical data of a motor vehicle wheel ~~mounted rotatably about an axis of rotation on a main shaft of a wheel balancing machine, in which a plurality of measurement points on the rotating wheel are scanned in contactless mode~~, the method comprising the steps of:

mounting the wheel rotatably about an axis of rotation on a main shaft of a wheel balancing machine; scanning a plurality of measurement points on the rotating wheel in contactless mode in at least two planes perpendicular to the axis of rotation and on a respective periphery of the corresponding part of the wheel; measuring~~, in at least two planes perpendicular to the axis of rotation, the~~ spacings of [[a]] said plurality of measurement points ~~on a respective periphery of the corresponding part of the wheel~~ from a reference location and [[the]] rotary angle positions of the respective measurement points~~, the measuring being carried out by a scanning light beam that has an unchanging direction at least during a revolution of the wheel~~; and determining the position of the motor vehicle wheel with respect to the axis of rotation from the ~~measurement~~ measured values of said spacings and said rotary angle positions, the scanning being carried out by a scanning light beam that has an unchanging direction at least during a revolution of the wheel.

2. (Currently Amended) A method according to claim 1, wherein the ~~position, in particular~~ at least one of the eccentricity and[[/or]] the angle of inclination of the geometrical axis of the wheel, with respect to the axis of rotation, is ~~or are~~ determined from the measurement values.

3. (Currently Amended) A method according to claim 1, wherein the measurement points are scanned on a surface of the part of the wheel, ~~which~~ and the part is substantially parallel to the axis of the wheel[[, and/or]] or a surface of the part of the wheel, which is substantially inclined or perpendicular.

4. (Currently Amended) A method according to claim 1, wherein a lateral wobble (run out) and/or radial wobble (run out) on the wheel is or are ascertained from the ~~measurement~~ measured values.

5. (Previously Presented) A method according to claim 1, wherein the measurement points are scanned on parts of the wheel of the inside of the wheel and/or the outside of the wheel and/or at the periphery of the wheel.

6. (Currently Amended) A method according to claim 1, wherein the position ascertained from the ~~measurement~~ measured values, ~~in particular~~ at least one of the eccentricity and[[/or]] inclination of the geometrical axis of the wheel with respect to the axis of rotation is ~~or~~ are used for correction of balancing parameters (balancing mass, angular position) which are ascertained in an unbalance measuring operation.

7. (Currently Amended) A method according to claim 4, wherein by ascertaining the run out data of the rim and the unbalance data of the vehicle wheel in a first positional relationship of the tire and the rim, and [[by.]] by matching the rim and the tire in a second positional relationship ~~to minimize~~ the effects of the run out of the rim and of the unbalance of the vehicle wheel will be minimized.

8. (Currently Amended) A method of determining geometrical data of a motor vehicle wheel mounted rotatably about an axis of rotation, ~~in which a plurality of measurement points on the rotating wheel are scanned in contactless mode, in particular~~ according to claim 1,

wherein the spacings of the measurement points on [[the]] a pneumatic tire of the motor vehicle wheel and ~~in particular~~ on one or more peripheral lines about the axis of rotation, relative to a reference location, are measured at different inflation pressures.

9. (Previously Presented) A method according to claim 8, further including ascertaining the run out data of the rim and the stiffness data of the tire in a first positional relationship of the

tire and the rim, and matching the rim and the tire in a second positional relationship to minimize the effects of the run out of the rim and of the difference of stiffness around the circumference of the tire.

10. (Currently Amended) A method according to claim 9, wherein tire irregularities, ~~in particular~~ tire stiffness values, in the peripheral direction of the pneumatic tire, are ascertained from the differences in the ~~spacing measurement~~ measured values of the spacings for the respective measurement points.

11. (Currently Amended) Apparatus for determining geometrical data of a motor vehicle wheel ~~(2) mounted rotatably about an axis of rotation (1) on a main shaft of a wheel balancing machine,~~ comprising a main shaft of a wheel balancing machine; clamping means to mount the wheel rotatably about an axis of rotation on the main shaft of the wheel balancing machine; a contactless scanning device ~~(3) connected to a spacing measuring device (4)~~ which ~~measures~~ scans, with a scanning light beam, ~~the spacing of a~~ measurement ~~point scanned~~ points on at least two peripheries on parts of the wheel, the two peripheries being in planes perpendicular to the axis of rotation, wherein a direction of the scanning light beam remains unchanged at least during revolution of the wheel; a spacing measuring device connected to the scanning device which measures spacings of the measurement points scanned on the wheel [[(2)]] from a reference location [[(5),]]; a rotary angle sensor for determining the respective rotary angle positions of the scanned measurement points during rotation of the wheel about the axis of rotation; and an evaluation device ~~(7) which evaluates the measurement values,~~ to which the spacing measuring device and the rotary angle sensor are connected, wherein ~~a rotary angle sensor (6) for determining the respective rotary angle positions of the scanned measurement points during rotation of the wheel about the axis of rotation (1) is connected to the evaluation device (7), and~~ the evaluation device [[(7)]] has a computer which determines the position of the motor vehicle wheel [[(2)]] and ~~in particular~~ the position of the geometrical axis [[(8)]] of the wheel with respect to the axis of rotation [[(1)]] from the spacings of the measurement points from the reference location [[(5)]] and the respective rotary angle positions of the measurement

points ~~which are on at least two peripheries on parts of the wheel, which peripheries are in planes (19, 20) perpendicular to the axis of rotation (1), a direction of the scanning light beam remaining unchanged at least during a revolution of the wheel~~.

12. (Currently Amended) Apparatus according to claim 11, wherein the scanning device [[(3)]] and the spacing measuring device [[(4)]] form a movable spacing measuring unit ~~(10; 11; 12)~~.

13. (Currently Amended) Apparatus according to claim 12, wherein the spacing measuring unit ~~(10; 11; 12)~~ is in the form of a triangulation measuring device.

14. (Currently Amended) Apparatus according to claim 11, wherein there are provided three spacing measuring units ~~(10; 11; 12)~~ of which respective spacing measuring units are directed on to the inside of the wheel, the outside of the wheel and the peripheral surface of the wheel.

15. (Currently Amended) Apparatus according to claim 14, wherein the spacing measuring units ~~(10; 11)~~ directed on to the inside of the wheel and the outside of the wheel are mounted pivotably.

16. (Currently Amended) Apparatus according to claim 14, wherein the spacing measuring unit [[(12)]] directed on to the peripheral surface of the wheel is mounted so as to be displaceable parallel to the axis of rotation [[(1)]].

Claim 17 (canceled).

18. (Currently Amended) Apparatus according to claim 11, wherein the rotary angle sensor [[(6)]] is non-rotatably coupled to the motor vehicle wheel [[(2)]].